Appl. No. 10/700,982 Amdt. Dated: September 28, 2005

Reply to Office Action of June 28, 2005

# **Amendments to the Drawings:**

The attached four (4) sheets of drawings include changes to the figures to label Figures 1(a), 1(b) and 2 as prior art. Two of the sheets are replacement sheets, and two are annotated

sheets showing changes to the drawings in red ink.

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## **Amendments to the Specification**

Please replace the Abstract of the Disclosure beginning on page 19 of the specification with the following <u>amended</u> Abstract:

Methods for utilizing optical systems in order to introduce digitally tunable amounts of temporal dispersion into optical signals and methods and systems for providing angular dispersion compensated output from optical switching/routing systems.

## **REMARKS/ARGUMENTS**

The Office Action of November 1, 2005 has been carefully reviewed and this response addresses the Examiner's concerns stated in the Office Action. All objections and rejections are respectfully traversed.

#### I. STATUS OF THE CLAIMS

Claims 1-17 were pending in the application.

Claims 1-9, 11, 13, 14 and 16 were rejected under 35 U.S.C. §102(b) as being anticipated by Stone et al. (U.S. 5,692,077).

Claims 10, 12, 15 and 17 were rejected under 35 U.S.C. §103(a) as being unpatentable over Stone et al. (U.S. 5,692,077).

Claims 7-17 have been canceled without prejudice.

Therefore, claims 1-6 are now pending in this application.

Claims 1-4 are amended in order to more clearly describe the invention.

### II. CLAIM REJECTIONS UNDER 35 USC § 102(b)

Claims 1-9, 11, 13, 14 and 16 were rejected under 35 U.S.C. §102(b) as being anticipated by Stone et al. (U.S. 5,692,077, the '077 patent).

Claim 1 recites a method for introducing selectable amounts of temporal dispersion into a signal. The '077 patent does not teach temporal dispersion compensation. Temporal dispersion increments, as described in the Applicant's specification, are due to the variation in optical path length with wavelength, which can result from propagation in an angularly dispersed state and can also result from propagation with the lateral chromatic shift. The '077 patent does not teach or show "angularly separating spectral components of the electromagnetic radiation beam, by the steps of selectively directing and subsequently selectively directing the electromagnetic radiation beam-in order to introduce the selectable amounts of temporal dispersion," a limitation of claim 1. Therefore, there is no showing or teaching of how the system of the '077 patent is used to compensate for temporal dispersion and Applicant asserts that reliance on inherency for anticipation is not proper.

new use, temporal dispersion compensation.

Claim 4 recites a method for compensating angular dispersion including the limitation of rendering, after selective diffraction, a direction of propagation of the electromagnetic radiation output beam parallel to an input direction. The '077 patent does not teach angular dispersion compensation. The Examiner, in the Office Action, stated that figure 13 of the '077 patent shows an output beam substantially parallel to an input direction. In describing figure 13, the '077 patent states that figure 13 "schematically illustrates a further embodiment of the present invention in which symmetric switchable gratings are used. [Here] symmetric recombination gratings 226, 228, and 230 [Fig. 13, the '077 patent] are used in combination with symmetric gratings 220, 222, and 224 as previously discussed with respect to FIGS. 1 and 4 of the drawings [of the '077 patent]. A saturable absorber noise suppressor stage 234 is incorporated in the embodiment as before to decrease the spurious signal levels in the nonselected channels" (the '077 patent, col. 13, lines 39-48). There is no indication in the '077 patent that the output beam is substantially parallel to the input direction. While the artist's rendering of Figure 13 may give the impression of the possibility or probability of the output beam being parallel to the input direction, "Inherency, however, may not be established by probabilities or possibilities." MPEP 2112

As stated above, a patent for a system or apparatus does not prevent a subsequent inventor from obtaining a patent on a new method for using the system or apparatus. Since the '077 patent does not teach or disclose angular dispersion compensation, principles of inherency do not preclude a method invention for the new use, angular dispersion compensation.

Applicant respectfully asserts that claim 1 and claim 4 are not inherently anticipated by the '077 patent. Since claims 2 and 3 are dependent on claim 1 and claims 5 and 6 are dependent

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on claim 4, Applicant respectfully asserts that claims 1-6 are not inherently anticipated by the

'077 patent.

III. CONCLUSION

In conclusion, in view of the above remarks, Applicant respectfully asserts that claims 1-6 in

this application are now in condition for allowance and respectfully request the Examiner

find claims 1-6 allowable over the prior art and pass this case to issue.

Although no additional fees are anticipated, the Director of Patents and Trademarks is

authorized to charge additional fees or credit overpayment to Deposit Account No. 50-3718.

The following information is presented in the event that a call may be deemed desirable by

the Examiner:

JACOB N. ERLICH (617) 854-4000.

Respectfully submitted,

Thomas W. Stone, Applicant,

Date: March 1, 2006

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